

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Art Unit	: 1791	Customer No.: 035811
Examiner	: Patrick Neal Butler	
Serial No.	: 09/889,113	Docket No.: 1232-01
Filed	: July 11, 2001	
Inventors	: Katsuhiko Mochizuki	Confirmation No.: 7939
	: Koji Sugano	
	: Yuhei Maeda	
Title	: POLYESTER YARN AND METHOD	
	: FOR PRODUCTION THEREOF	

Dated: February 9, 2009

RESPONSE

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This is in response to the Official Action dated August 21, 2008.

The Applicants note with the appreciation the withdrawal of the rejection of Claims 15-19, 21, 22 and 24 under 35 USC §112.

Claims 15-19, 21, 22, 24 and 29 are rejected as obvious under 35 USC §103(a) over the combination of US '172 and JP '769 with EP '422.

Claims 15-19, 21, 22, 24 and 29 are not obvious over the combination of EP '422, US '172 and JP '769 because the combination fails to result in a method containing all the elements of these claims and one of ordinary skill in the art would not be motivated to combine these references to achieve the claimed methods for producing a multifilament yarn with the specified properties. Reasons are set forth below.

First, the rejection fails to establish that the combination of US '172 and JP '769 with EP '422 results in all the elements of Claims 15-19, 21, 22, 24 and 29. This is because the rejection clearly states that the physical properties of the multifilament yarn produced by the claimed methods

are “not positively stated by [the references]” and are instead inherent. Independent Claim 15 recites that the claimed method produces “multifilament yarn, which has a strength of at least 3 cN/dtex, a Young’s modulus of no more than 25 cN/dtex, a minimum value of a differential Young’s modulus at 3-10% extension of no more than 6.6 cN/dtex, and an elastic recovery following 10% elongation of at least 90%,” that the “breaking-extension of the yarn is 40% or more,” and the yarn has a “CF value 1-30[.]”

The rejection correctly states that the claimed physical properties are not positively stated by the references. The Applicants note that, in fact, these physical properties are not “necessarily” present in the cited references and thus cannot be inherently taught or otherwise disclosed by these references. Moreover, it is self evident to state:

“That which may be inherent is not necessarily known. Obviousness cannot be predicated on what is unknown.” See In re Spormann and Heinke, 150 USPQ 499, 452 (CCPA 1996).

This means the rejection fails to establish that combining EP ‘422, US ‘172 and JP ‘769 teach all of the elements of the claims. Furthermore, the Applicants note that none of the cited references teach, by themselves, a method identical to the claimed methods and thus would not necessarily produce a multifilament yarn having the same physical properties as recited in the claims. Needless to say, this means no single reference or combination of references inherently discloses the multifilament yarn of the claims and thus cannot render the claims obvious.

Second, the rejection fails to establish that one of ordinary skill in the art would be motivated to combine JP ‘769 and the other references. This is because one of ordinary skill in the art would not see a need to combine the teachings of EP ‘422 and US ‘172 with JP ‘769 because there was no apparent problem to be solved or other motivation which would cause one of ordinary skill in the art to consider the processes or fibers taught in EP ‘422 and US ‘172 as being deficient.

Third, one of ordinary skill in the art would not be motivated to modify the teachings of US '172 to minimize the variation in R_a to achieve a smooth surface to successfully practice the invention of EP '422. One reason for this is that there is an enormous spectrum of variables in a complex process such as those described in EP '422 and US '172 which could be result-effective variables. Examples of these include material delivery speed, nozzle pressures, the physical properties of the materials to be formed into yarn, temperature, the parameters of the material handling machines used in the manufacturing process and a whole host of other variables too numerous for mention here. Thus, given the whole host of variables that may affect some aspect or another of the manufacture of multifilament yarns, it is unclear why one of ordinary skill in the art would have selected, from this entire universe of potential variables, the minimization of the R_a value of the second drum. All things being equal, it seems that the likelihood of one of ordinary skill in the art selecting this one particular variable for extensive optimization would be extremely small. This means that a person of ordinary skill in the art would not be motivated to modify the teachings of US '172 to practice the invention of EP '422. This is particularly true if one assumes, solely for the sake of argument, that EP '422 is fully enabled and operable such that one of ordinary skill in the art finds it unnecessary to perform any modifications.

Fourth, the rejection improperly relies on In re Sol Einstein. The rejection cites In re Sol Einstein for the proposition that a mere reversal of the essential working parts in a device involves only routine skill in the art. The Applicants respectfully submit that In re Sol Einstein is distinguishable on its facts from the present situation. This is because what is being claimed here are methods, which are a series of steps to achieve a result, not a device as in In re Sol Einstein. See In re Sol Einstein, 46 F. 2nd 373 (CCPA 1931). The Applicants respectfully request that the rejections of Claims 15-19, 21, 22, 24 and 29 under 35 USC §103(a) be withdrawn.

Last, the Applicants enclose a Declaration of Mr. Katsuhiko Mochizuki for consideration. Mr. Mochizuki conducted a number of additional experiments beyond the Examples and Comparative Examples already in the Applicants' Specification. The additional experiments resulted in new Examples 8-14 and new Comparative Examples 6-11. The Comparative Examples demonstrate that utilizing various components of the methodology outside of the Applicants' claimed ranges result in multifilament yarns that have serious problems such as their productability or quality. Also, a number of the multifilament yarns broke during production and were not even subjected to testing due to their inferiority. The Applicants therefore respectfully submit that the original Examples and Comparative Examples, taken together with the new Examples and Comparative Examples demonstrate a criticality associated with the combination of the Applicants' various claimed aspects. The Applicants respectfully submit that the EP '422, US '172 and JP '769 disclosures, whether taken individually or collectively, fail to disclose, teach or suggest this unexpected result achieved by the Applicants. Withdrawal of the rejection is respectfully requested.

In light of the foregoing, the Applicants respectfully submit that the entire Application is in condition for allowance which is respectfully requested.

Respectfully submitted,



T. Daniel Christenbury
Reg. No. 31,750
Attorney for Applicants

TDC/vp
(215) 656-3381